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CDC Health Advisory

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Serratia marcescens blood stream infections associated with contaminated magnesium sulfate solutions – March 2005

The Centers for Disease Control and Prevention (CDC) has learned of 11 cases of *Serratia marcescens* (*S. marcescens*) bacteremia from two states associated with magnesium sulfate solution manufactured by Pharmedium (Lake Forest, IL) that may have been intrinsically contaminated with *S. marcescens*. In March 2005, the New Jersey Department of Health and Senior Services (NJDHSS) was notified of a cluster of *S. marcescens* blood stream infections involving five patients hospitalized at a New Jersey health-care facility. All five patients developed sepsis caused by *S. marcescens* and had received intravenous magnesium sulfate manufactured by Pharmedium prior to illness onset. All patients responded to ciprofloxacin treatment, are well and have been discharged from the health-care facility. In an earlier outbreak in a California hospital in January 2005, 6 cases of *S. marcescens* bacteremia in cardiovascular surgery patients were identified, all of whom received magnesium sulfate manufactured by Pharmedium from a lot that differed from the implicated lot in New Jersey.

The NJDHSS laboratory recovered *S. marcescens* from an opened bag of magnesium sulfate (1 gram in 5% dextrose and water; lot # 100504900049, expiration date 4/4/05) and an unopened bag of magnesium sulfate (1 gram in 5% dextrose and water; lot # 100504900049). The patient isolates and those obtained from the bags of magnesium sulfate solution had identical antibiotic susceptibility profiles. Molecular typing to determine relatedness of the isolates is being performed by the CDC. Pharmedium provides pharmaceutical products to hospitals nationwide.

CDC is working with state health departments and the Food and Drug Administration to determine the magnitude of this outbreak. Testing of other product lots is underway to determine the extent of possible contamination. Individuals who are aware of cases of *S. marcescens* bacteremia occurring during or shortly after receipt of this product should contact their health department and CDC at 1-800-893-0485.